PERCENTAGE OF PROTEIN IN NON-LEGUMES AND LEGUMES
WHEN GROWN ALONE AND IN ASSOCIATION IN
FIELD MIXTURES.¹

J. M. WESTGATE AND R. A. OAKLEY,
U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.

The recent publications² concerning the effect of legumes upon the
nitrogen content of the associated non-legume grown in mixtures in
pots and in experimental plots raised the question in the minds of the
authors of the present paper as to how far the logical conclusions from
these experiments are applicable to the ordinary farm mixtures of
legumes and non-legumes on fields of average fertility in different
sections of the country and upon the different types of soils as well
as in different seasons.

As an instance of the conclusions drawn from one of the publica-
tions above referred to, the following article³ seems worthy of note:

THE PLANTING OF NON-LEGUMES WITH LEGUMES. In the spring, when clover
is generally seeded and when plans for cover-crops, green manures, and mixed
forage crops are being made, the value of having leguminous plants associated
with non-leguminous plants should be kept in mind. The general value of

¹ Presented at the annual meeting of the Society, Nov. 17, 1913
² T. L. Lyon and J. A. Bizzell, Availability of Soil Nitrogen in Relation to
   the Basicity of the Soil and to the Growth of Legumes, The Journal of In-
   Method for the Study of Soil Fertility Problems. Journal of Agricultural
   on Nitrification in the Soil and on the Nitrogen Content of Accompanying
   T. L. Lyon and J. A. Bizzell, A Heretofore Unnoted Benefit from the Growth
   V, No. 2, 1913.
³ The Announcer of the College of Agriculture, Cornell University, Ithaca,
   N. Y., Vol. II, No. 6, p. 22 (March, 1913). See also Weekly News Letter to
   Crop Correspondents, U. S. Department of Agriculture, Vol. I, No. 24, Jan. 21,
   1914.